

# PERINATAL PRESCRIBING TRENDS AT PGI, CHANDIGARH

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## SUMMARY

An appraisal of prescribing of drugs during pregnancy was carried out. Antenatal prescriptions from the general (182) and high risk (70) clinics were monitored. Apart from hematinics, rational use of other drugs was seen whether they were antimicrobials or antiemetics or anti-abortive. Certain lacunae in prescribing are discussed.

### Introduction

The problems of prescribing in pregnancy are compounded by ethical and medico-legal considerations. Some studies in this regard (Boethius, 1977, Hill, 1973; Hawkins, 1983) have shown that prescribing should not be done without adequate indications. Drug exposure in pregnant women has been analysed to see what drugs are prescribed, do they have any relation to complications in previous pregnancies, and are there any lacunae in the prescribing of these drugs.

### Materials and Methods

The sample of this study were 182 antenatal prescriptions from the general antenatal clinic, and 70 from the high risk antenatal clinic. The proformae to abstract information (from the outpatient cards) were filled by one of the authors (E.A.). Tabulation, analysis and scoring was done in consultation with collaborat-

ing colleagues from the Obstetrics and Gynaecology Department.

### Results

Table I shows the distribution of the age, and Table II the trimester of pregnancy, of the patients attending the antenatal clinics. Largest number were in the age group between 20-30 years. Patients came for antenatal follow, up, both in general and high risk clinics in second and third trimester (Similar percentages) more than in first trimester.

TABLE I  
Age Range of Patients

Age Range	% Antenatal Patients	
	General	High Risk (AN)
20 Years	12.09	0
20-30 Years	81.87	91.43
31-40 Years	6.40	8.57

AN = Antenatal.

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Table III shows the percentages of complications and morbidity in earlier pregnancies. As can be seen spontaneous

TABLE II  
Trimester of Pregnancy in Which Patients Were Intercepted

Trimester	General (%)	High Risk (AN) (%)
First	13.19	15.07
Second	43.41	44.28
Third	43.41	38.57

AN = Antenatal.

abortions head the list followed by still births. The others tick marked in the Table are also high risk cases but seen first in the general clinic and then referred to high risk clinic.

TABLE III  
Relation With Previous Obstetric History

Complications associated with earlier preg.	General (%)	High Risk (AN) (%)
Full term N.V. delivery	4.94	14.28
Preterm N.V. delivery	0.55	15.71
Full term forceps	0.55	1.43
Emergency L.S.C.S.	0.55	4.28
Spontaneous abortion	26.92	80.0
M.T.P.	1.1	25.71
Still birth	1.65	4.28

AN = Antenatal.

N.V. = Normal Vaginal.

L.S.C.S. = Lower Segment Ceasarean Section.

M.T.P. = Medical Termination of Pregnancy.

Table IV shows the various class of therapeutic agents prescribed. The most commonly prescribed (70% and 49%) iron preparation is ferrous sulphate, 30% in general, and 51% in high risk were prescribed expensive proprietary iron preparations i.e. fefol, fesovit etc. Apart from use of calcium, folic acid and multivitamins in all prescriptions, the use of other

TABLE IV  
Drugs Prescribed  
(All Expressed as Percentages)

	General Cases	High Risk Cases
<i>Iron Preparations:</i>		
Ferrous sulphate	70.33	48.57
Fefol (Ferrous sulf folic acid)	15.93	35.71
Other iron preparations	11.54	12.86
<i>Calcium Preparations:</i>		
Ostocal	23.08	11.43
Caldecee	15.38	14.28
Other calcium preparations	02.75	10
<i>Nutrients:</i>		
Spert	3.30	1.43
<i>Vitamins:</i>		
Multivitamin	82.42	42.86
Folic acid	63.74	61.43
Other preparations	2.2	14.28
<i>Antiabortive and Hormone preparations:</i>		
Duvadilan	2.75	27.14
Gestanin	1.1	30
Fetugard	0.0	4.28
Inj. Proluton	0.0	2.86
Antacids	4.39	1.43
Antimicrobials	0.55	2.86
Antibiotics	0.0	4.28
Cough expectorant	2.2	0.0
Anticonvulsants	1.65	4.28
Antifungal	0.55	7.14
Laxatives	4.94	1.43
Analgesics	1.1	5.71
Anti emetic	0.55	0.0
Hypnotics and anti-depressants	1.1	21.43
Broncho-dilators	0.0	10
Anti-arrhythmics	0.0	1.43
Drugs acting on thyroid	0.0	1.43
Anti-hypertensives	0.0	2.86
Diuretics	0.0	5.71
Anti-diabetics	0.0	2.86

groups of drugs i.e. antiabortive, antimicrobial, antifungal, diuretics were seen, as well as the use of hypnotics and antidepressants in high risk cases. Prescriptions were audited under heads of drug choice, dose, duration, interdose interval and dosage form. The drug choice, interdose, interval and dosage form, in all prescriptions were appropriate dosage were also indicated for most drugs prescribed including hematinics. Duration of drug intake may be indicated by period when called for follow up, for hematinics it can be presumed to be taken for the entire duration of pregnancy. But drugs like Nalidixic acid, Duvadilan, Gestatin, Luminal must be indicated. The basic rules of writing a prescription cannot be forgotten or flouted (Ingrim *et al* 1983).

### Results

The epidemiological data in Tables I and II show the age of the pregnant patients in both high risk clinic and general antenatal clinic, all patients were above the age of 21 years, one would have expected a higher percentage of patients in the first trimester in high risk cases but in our sample this is only marginally higher than the general antenatal clinic patients.

Use of hematinics is advocated on the basis of the physiological anaemia seen in pregnancy. This is more so in our patients coming from a poorer socio-economic strata, folic acid is prescribed from the first trimester to meet the growing demands of organogenesis of the foetus. As nausea is more prominent in the first trimester, iron, which may itself produce nausea, was added to folic acid in the second trimester, in many cases.

As expected the single largest groups of drugs used in this appraisal was folic acid,

iron and multivitamins. This is now a national policy to give these supplements in pregnancy. The largest number of prescriptions 70% in general and 49% high risk cases carried ferrous sulphate alone, and 64% and 62% folic acid respectively, fefol (which contains ferrous sulphate and folic acid) was prescribed to the tune of 16% (in general antenatal and 36% in high risk antenatal cases).

Next in order were seen the antiabortive drugs, like duvadilan (iso-x-suprine hcl 10 mg) and gestatin (allyloestrenal 5 mg). This group was prescribed to the tune of 27% and 30% in high risk antenatal cases. Some patients may have received it throughout the antenatal period but often duration of intake/or follow up was not indicated by the prescriber.

Hypnotics and antidepressants were also selectively used for high risk antenatal patients. Antibiotics, antimicrobials were judiciously used.

The most outstanding drug use information emanating is the surprising meagre use of antiemetics and antacids, which if compared in general practice would be a considerable chunk of perinatally prescribed drugs.

The present appraisal would have been ideal had it been possible to follow prescribing for patients after pregnancy, during lactation and also for the new born, for any cause effect relationship to teratogenic potential of drugs prescribed. Another short coming in any such study is that this is not a true measure of the drug intake by the patients, whose prescriptions have been monitored even compliance to hematinics cannot be presumed. Analgesics and antiemetics are readily available

over the counter, and may have been consumed as non-prescription drugs.

Conclusion

The present study shows that in an institute such as ours there is ample awareness of minimal and rational prescribing of drugs to pregnant patients.

References

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